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=> fil wpix
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    GUIDES, PLEASE VISIT:
    http://www.derwent.com/userguides/dwpi_guide.html <<<

=> d all abeq tech abex tot

L56  ANSWER 1 OF 23  WPIX  COPYRIGHT 2003 THOMSON DERWENT on STN
AN   2002-590439 [63]   WPIX
DNC  C2002-166903
TI   Producing automatically pH-adjusting dry powdered
     culture medium, by determining ratio of pH-opposing forms of buffer salts
     required to be added to powder, and adding amounts of the buffer
     salts in ratio determined.
DC   B04 C06 D16
IN   DADEY, B M; FIKE, R M; HASSETT, R F; RADOMINSKI, R C
PA   (INVI-N) INVITROGEN CORP
CYC  97
PI   WO 2002036735 A2 20020510 (200263)* EN  112p    C12N000-00
       RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
           NL OA PT SD SE SL SZ TR TZ UG ZW
        W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
           DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
           KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
           RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
     AU 2002032406 A  20020515 (200263)              C12N005-00
ADT  WO 2002036735 A2 WO 2001-US42982 20011106; AU 2002032406 A AU 2002-32406
     20011106
FDT  AU 2002032406 A Based on WO 200236735
PRAI US 2000-705940   20001106
IC   ICM  C12N000-00; C12N005-00
     ICS  C12N005-02; C12N005-04; C12N005-06
AB   WO 200236735 A UPAB: 20021001
     NOVELTY - Producing (M) an automatically pH-adjusting dry
     powdered culture medium, involves determining the ratio of
     pH-opposing forms of buffer salts required to be added to the
     powder to automatically provide a desired final pH upon
     reconstitution of the powder with a solvent and adding amounts
     of pH-opposing forms of buffer salts to the powder in the ratio
     determined.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
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Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

following:
(1) an automatically pH-adjusting **dry powdered** culture medium (I) produced by (M);
(2) a complete **dry powder** culture medium (II) that supports the cultivation of a cell in vitro upon reconstitution of the medium with a solvent without the addition of any supplemental nutrient components to the medium;
(3) a kit (III) for culturing a cell, comprises one or more containers containing (I) or (II); and
(4) a composition (IV) comprising (I) or (II) and at least one cell.
USE - (M) is useful for producing (I). (I) or (II) is useful for cultivating a cell, by reconstituting (I) or (II) with a solvent to form a culture medium solution, and contacting the cell with the liquid solution under conditions favoring the cultivation of the cell, where the cell is a bacterial or eukaryotic cell, preferably yeast cell, plant cell, animal cell (preferably a mammalian cell or a cell line derived from it, most preferably a human cell or a cell line derived from it) (claimed).
ADVANTAGE - (M) enables preparation of nutritive media, media supplements, media sub-groups, buffers and cells at reduced cost. The cost reductions are due to several factors. For example, the media, media supplement, media sub-group and buffer formulations are produced with much smaller production facilities since the large stir tanks required for 1X formulations are not required. In addition, the media, media supplement, media sub-group and buffer formulations are prepared on an as needed basis using just in time production techniques which reduce inventory, storage and labor costs. The time required for the preparation and shipping of the media, media supplement, media sub-group, buffer formulations is reduced from 6-8 weeks to as little as one day. The automatically pH-adjusting media also provides significant cost and time savings, and reduces the tendency for introduction of contamination into reconstituted media that may occur during the pH adjustment process according to standard methods using traditional **dry powder** or bulk liquid media. The nutritive media, media supplements, media subgroups or buffer are produced and stored for an extended period of time without significant loss of biological and biochemical activity. The culture media is prepared in such a way so as to prevent the interaction of media components that adversely affect the stability, solubility, structure and/or performance of the medium. (M) also allows for the preparation of components of nutritive media, media supplements, media subgroups or buffers which are used to prepare very large quantities of 1X media, media supplements, media sub-groups or buffers (e.g. 100000 liters or more) which require only one quality control test compared to multiple quality control test for multiple batches produced according to other commonly used techniques. Media, media supplement, media sub-group and buffer formulations are more consistent between batches since the individual components are more stable. The **dried** cell **powders** are also technologically and economically advantageous, since the cells may be stored, in low volume, for extended periods of time with little need for specialized equipment beyond that typically available in the laboratory. The cells prepared by (M) are preserved without being exposed to cryopreservative reagents which may be toxic to the cells.
Dwg.0/19

FS CPI
FA AB; DCN
MC CPI: B04-B01B; B04-F02; B04-H01; B04-H06; B04-J01; B04-L01; B04-N06; B05-A01B; B05-B02A3; B05-C04; B07-D03; B07-D09; B10-B02D; B10-B02J; C04-B01B; C04-F02; C04-H01; C04-H06; C04-J01; C04-L01; C04-N06; C05-A01B; C05-B02A3; C05-C04; C07-D03; C07-D09; C10-B02D; C10-B02J; D05-C02; D05-C03; D05-C12; D05-H01; **D05-H02**; D05-H08
TECH UPTX: 20021001
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Method: (M) further comprises packaging and sterilizing the **dry powdered** medium. The sterilization is accomplished by irradiating the **dry**

powdered medium with gamma-rays until the medium is sterile. The medium comprises at least one monobasic and/or dibasic buffering salt such as phosphate salt, preferably sodium or potassium phosphate salt. The **dry powder** medium contains sodium bicarbonate but does not liberate carbon dioxide upon storage.
Preferred Medium: (II) is an automatically pH-adjusting medium. (II) comprises one more components selected from serum, one or more culture medium supplements, L-glutamine, insulin, transferrin, one or more hormones, lipids, growth factors, cytokines, neurotransmitters, extracts of animal tissues, organs or glands, enzymes, proteins, trace elements, extracellular matrix components, antibiotics, viral inhibitors and buffers.
Preferred Composition: (IV) is a **powder**. The cell is selected from bacterial cell, yeast cell, plant cell and animal cell (preferably a mammalian cell, most preferably human cell). The cell is an established or transformed cell line.

ABEX UPTX: 20021001
WIDER DISCLOSURE - Also disclosed is a method for preparing **dried** cells.
EXAMPLE - Production of automatically pH-adjusted **powdered** culture media involved adding the pH-adjusting chemical (usually HCl or NaOH) to the **powder** to bring the pH to about 7.0-7.4 upon addition to water. Once sodium bicarbonate was added to the **powder** , many **powdered** media reconstituted in water on the basic side of neutrality and needed HCl addition. Adding HCl to a **powder** containing sodium bicarbonate was expected to be problematic. However, since the added liquid (5N HCl) never resulted in a moistened or liquid state inside the fluid bed apparatus, the sodium bicarbonate did not give off CO2 gas and fully retained its buffering capacity. This had been examined in the present studies by pH-titering experiments: equal amounts of acid, in two separate experiments were found to reduce the pH of agglomerated media and automatic pH-adjusted agglomerated media by an identical amount as that for a standard medium with sodium bicarbonate added to the liquid at the time of reconstitution. These results indicated that both agglomeration with subsequent adjustment of pH, and agglomeration with adjustment of pH during the agglomeration process, functioned equally well to produce **powdered** culture media with significant buffering capacity.

L56 ANSWER 2 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **2002-557583** [59] WPIX
CR 2003-066690 [06]
DNN **N2002-441369** DNC **C2002-158266**
TI Culture device for propagation/storage of microorganisms, has **self -supporting**, waterproof substrate containing gelling agent on it, and cover sheet, each comprising positioning structures.
DC B04 D16 T01
IN BEDINGHAM, W; RAJAGOPAL, R; WILLIAMS, M G
PA (MINN) 3M INNOVATIVE PROPERTIES CO
CYC 97
PI WO 2002046354 A2 20020613 (200259)* EN 35p C12M001-16
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2002026954 A 20020618 (200262) C12M001-16
ADT WO 2002046354 A2 WO 2001-US43880 20011105; AU 2002026954 A AU 2002-26954 20011105
FDT AU 2002026954 A Based on WO 200246354
PRAI US 2000-733223 20001208
IC ICM C12M001-16

AB WO 200246354 A UPAB: 20030124
NOVELTY - A culture device (10) (I) for propagation or storage of microorganisms, comprising a **self-supporting**, waterproof substrate (12) and a cover sheet (20), where a gelling agent is contained on **self-supporting** substrate, and the substrate and cover sheet comprise positioning structures (22), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a system for harvesting cells from a colony on a thin film culture device having positioning structures, comprising a scanner, processing unit, and a picking apparatus, where the scanner provides an image file to processing unit which provides the position of the colony relative to the positioning structures, and the picking apparatus harvests the cells from the colony based on the position;

(2) a picking apparatus for harvesting cells from a colony on a thin film culture device having positioning structures, comprising an orienting unit which positions colony relative to the positioning structures, and a picking arm programmed with the position of the colony relative to positioning structures and is adapted to contact cells of the colony based on the position;

(3) a computer readable medium having instructions in it to cause a programmable processor to display an image of a thin film culture device having positioning structures on a display device, differentiate positioning structures from colonies on the culture device, identify location of positioning structures, identify location of colonies, calculate position of the colonies relative to positioning structures, and to select specific colonies; and

(4) a computer readable medium having an image stored in it that contains image data representative of colonies on a thin film culture device having positioning structures, where the data are the coordinates of colonies on a culture device relative to positioning structures on the culture device.

USE - (I) is useful for propagation or storage of microorganisms. (I) is also useful for harvesting cells from a colony on a culture device, by obtaining an image of the culture device by scanning, processing the image to provide position of the colony relative to the positioning structures, and contacting the cells with a picking apparatus based on the position of the colony to harvest the cells. The picking apparatus is moved in one or two directions from the contact point to harvest the cells. The image processing comprises identifying location of the positioning structures, identifying location of the colony, and calculating position of the colony relative to positioning structures, and also selecting a specific colony having a predetermined size compared to a control colony, or predetermined color relative to the position structures (claimed).

(I) is useful in molecular cloning techniques.

ADVANTAGE - (I) is sample-ready, compact and require no preparation before use, and is therefore highly suitable for imaging microbial colonies contained on the device with an inexpensive, flatbed scanning device, than traditional culture devices, such as petri dishes.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic diagram of a thin film culture device having positioning structure.

Culture device 10
Waterproof substrate 12
Culture medium 14
Spacer 16
Cover sheet 20
Positioning structures 22
Dwg.1/7

FS CPI EPI
FA AB; GI
MC CPI: B04-F09; B04-F10; B11-A01; B11-C06; B11-C08E1; B12-K04E; D05-H01; **D05-H02**; **D05-H04**; **D05-H05**; D05-H10
EPI: T01-C06; T01-J06A; T01-J08A1; T01-J10B; T01-S03

TECH UPTX: 20020916
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Device: (I) comprises first and second layers (separable from each other) comprising a gelling agent and positioning structures such as holes, slits, slots, beveled edges, notches, or raised structures. (I) further comprises a barcode label on its surface, an indicator, a corresponding inducer, and two chromogenic indicators providing different colors for differentiating microorganisms. The cover sheet is transparent, and comprises a gelling agent and reinforcement layer such as foam, film or non-woven material, and the **self-supporting** substrate further comprises a spacer (16) and a culture medium (14).
Preferred System: The picking apparatus has an orienting unit having receiving structures adapted to receive corresponding positioning structures in the culture device. The orienting unit further comprises a compliant pad, and the picking apparatus comprises a liquid handling tip.
Preferred Medium: The medium is a storage or transmission medium for storing or transmitting the instructions.

ABEX UPTX: 20020916
EXAMPLE - A thin film culture device was constructed as described in US Patent Application No.09/541416, except that the culture device had two 0.32 cm positioning holes in opposite corners and a reinforcing foam sheet which adhered to the cover sheet. Escherichia coli DH5alpha cells were made competent using CaCl2, and then transformed with pUC19 or its derivatives. After transformation and recovery, all cells were mixed and diluted in Butterfield's buffer containing ampicillin (50 microg/ml). 1 ml of the diluent was plated on a thin film culture device. Plates were incubated at 37degreesC for 14-18 hours and then scanned. The culture device was placed face down on a Umax 2000 flatbed scanner and a bitmap file of the culture device was obtained. The bitmap file was processed such that colonies were identified by color, intensity level, and minimum/maximum size. Colonies were mapped into picture units with respect to the positioning structures. The colony map was resized and rotated into coordinates using the known geometric location of the positioning structures. As the culture device was designed to be peeled open before picking colonies, the mirror image was generated for the robotic workstation to produce transformed colony coordinates. Transformed colony coordinates were downloaded into an appropriate instruction file for a Biomek robot. Beckman Biomek software executed the revised colony picking algorithm based on the colony coordinates. The culture device was positioned on the orienting unit of the workstation that contained receiving structures adapted to receive the corresponding positioning structures on the culture device. The robotic arm used a P20 pipetting tool and selected pipette tips from a pipette holder. Picked bacteria were transferred into incubation broth (1.2 ml of Luria-Bertani (LB) medium and 50 mug/ml ampicillin) at an unique location in a 96-well plate. The pipette tip was returned back to the pipette holder, and a new pipette tip was selected for the next pick. Cultures were grown at 37degreesC for 16 hours with shaking, and the growth was observed in 85 of the wells (88.5%), and plasmid DNA was isolated. Plasmids were cut with EcoRI and electrophoresed. Ethidium bromide staining of the gel indicated that different colonies were picked and plasmids of varying sizes were isolated.

L56 ANSWER 3 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **2002-010762** [01] WPIX
DNN **N2002-008995** DNC **C2002-002619**
TI Detection of microorganisms, e.g., mold spores, from air or surfaces, comprises exposing collection device bearing **dry** growth medium to environment and adding premeasured volume of activating liquid to medium.
DC D16 S03
IN **LAROCCA, M A K; LAROCCA, P T; REILLY, S M; LAROCCA, M K**

PA (LARO-I) LAROCCA M A K; (LARO-I) LAROCCA P T; (REIL-I) REILLY S M; (HOME-N) HOME HEALTH SCI INC

CYC 96

PI WO 2001074168 A1 20011011 (200201)* EN 32p A01N063-00 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
US 2001041352 A1 20011115 (200201) C12Q001-04 <--
AU 2001055829 A 20011015 (200209) A01N063-00 <--
EP 1286593 A1 20030305 (200319) EN A01N063-00 <--
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

ADT WO 2001074168 A1 WO 2001-US40443 20010404; US 2001041352 A1 Provisional US 2000-194666P 20000404, US 2001-826045 20010404; AU 2001055829 A AU 2001-55829 20010404; EP 1286593 A1 EP 2001-929040 20010404, WO 2001-US40443 20010404

FDT AU 2001055829 A Based on WO 200174168; EP 1286593 A1 Based on WO 200174168

PRAI US 2000-194666P 20000404; US 2001-826045 20010404

IC ICM **A01N063-00; C12Q001-04**
ICS **C12N001-00; C12Q001-06; C12Q001-24;** G01N001-30

AB WO 200174168 A UPAB: 20020105
NOVELTY - Detecting microorganisms comprising:
(a) exposing a collection device bearing a **dry** growth medium to a microorganism-containing environment;
(b) adding a premeasured volume of activating liquid to the **dry** growth medium; and
(c) allowing collected microorganisms to grow into colonies, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a kit for detecting microorganisms comprising:
(1) a **dry** collection device (12) for collecting microorganisms having a substrate with an upper surface and a layer of **dry** growth medium disposed on the upper surface of the substrate; and
(2) a premeasured volume of liquid (17) to hydrate the **dry** growth medium after the microorganisms have been collected.
USE - For detecting microorganisms, e.g., mold spores, from the air and from surfaces.
ADVANTAGE - The invention overcomes the problems of time-lag growth disparities and evaporation of the activating liquid during collection. The **dry** collection devices exhibit a longer shelf-life and is easier to handle, especially at the extremes of normal ambient temperatures. The kit can be used without need for assistance or employment of a microbiologist, laboratory technician or other skilled personnel. The implementation of the quantifiable collection of environmental microorganisms from air and surfaces is made much more cost effective.
DESCRIPTION OF DRAWING(S) - The figure shows the contents of a collection kit of the invention.
Dry collection device 12
Premeasured volume of liquid 17
Hand press 18
Dwg.2/12

FS CPI EPI

FA AB; GI

MC CPI: **D05-H02; D05-H04; D05-H05; D05-H06**
EPI: S03-E13D

TECH UPTX: 20020105
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Device: The collection device

comprises a substrate having an upper surface and a layer of a **dry** growth medium on the upper surface of the substrate. A cover sheet is releasably adhered to at least a portion of the substrate. The cover sheet has disposed on it growth media, dyes, antibiotics or their combinations. An adhesive layer on the upper substrate surface is translucent to allow the colonies to be visually inspected. A cold water-soluble **powder** comprising nutrients for growing microorganisms is adhered uniformly to the adhesive. The **dry** collection device further comprises an air-permeable membrane having its peripheral edge(s) substantially uncovered and have a bottom surface fixed to and covering at least a portion of the top surface of the membrane containing one or more nutrients for growing microorganisms and optionally a gelling agent. The kit further comprises a hand press having a pressing surface and a raised ring disposed on the surface defining a predetermined area.
Preferred Component: The **powder** comprises a gelling agent which forms a gel having a Brookfield viscosity of at least 1500 cPs when hydrated with a premeasured volume of water.
Preferred Method: After step (b) and before step (c), the activating liquid is spread over a predefined area of the medium with a hand press (18) by placing the hand press over the liquid on the medium and applying pressure. The cover sheet is opened in step (a) to expose the **dry** growth medium to ambient air and closed in step (c) to allow collected microorganisms to grow. The collection device may be placed in an incubator between steps (b) and (c). The colonies are counted after step (c).

L56 ANSWER 4 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 2001-522464 [57] WPIX
DNC C2001-155976
TI Device for culturing microorganisms comprising a polymer immobilization layer.
DC B04 D13 D16
IN HYMAN, J M; JEFFREY, S R; MARESCH, M J; MATSUMURA, P M; THORPE, T C
PA (ALKU) AKZO NOBEL NV; (INMR) BIOMERIEUX INC
CYC 95
PI WO 2001059060 A2 20010816 (200157)* EN 45p C12M001-34 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001034859 A 20010820 (200175) C12M001-34 <--
NO 2002003790 A 20021008 (200280) C12M000-00
EP 1297105 A2 20030402 (200325) EN C12M001-34 <--
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
ADT WO 2001059060 A2 WO 2001-US3812 20010206; AU 2001034859 A AU 2001-34859 20010206; NO 2002003790 A WO 2001-US3812 20010206, NO 2002-3790 20020809; EP 1297105 A2 EP 2001-907026 20010206, WO 2001-US3812 20010206
FDT AU 2001034859 A Based on WO 200159060; EP 1297105 A2 Based on WO 200159060
PRAI US 2000-502324 20000211
IC ICM C12M000-00; **C12M001-34**
ICS C12M001-16; **C12Q001-04**
AB WO 200159060 A UPAB: 20011005
NOVELTY - A device for culturing microorganisms, is new.
DETAILED DESCRIPTION - A device for culturing microorganisms comprises a container containing an immobilization layer made of an interconnected network of polymer chains with the interstitial spaces less than the size of microorganisms to be cultured so that the microorganisms during culturing are immobilized on the surface of the immobilization layer.
An INDEPENDENT CLAIM is included for a method for detecting

microorganisms comprising using the device.
USE - The device is useful for the surface culture of microorganisms from bulk fluids.
Dwg.0/8
FS CPI
FA AB; DCN
MC CPI: B04-F01; B11-A01; B11-C08E1; B11-C09; B12-K04E; D05-A03; **D05-H02**; D05-H08; D05-J
TECH UPTX: 20011005
TECHNOLOGY FOCUS - BIOLOGY - Preferred Device: The interstitial space is preferably less than 10 mum, especially less than 0.1 mum. The polymer chains are capable of absorbing more than 0.04ml/cm2, especially 0.1ml/cm2, of sample. The device may include lytic agents and/or enzymes and a support matrix. The immobilization layer is preferably a solid or semi-solid, especially a hydrophilic polymer and may comprise nutrients, antibiotics, antibiotic neutralizers, indicators, detergents, selective agents and culture media. The device may include a sensor layer which changes color where there are microorganisms. The cultured microorganisms may be removed for further testing, including antibiotic susceptibility and identification. The method may be applied to a blood, body fluid or food sample.
ABEX UPTX: 20011005
EXAMPLE - A 1.5% solution of carboxymethyl cellulose (10ml) was added to a 60mm petri dish and **dried** overnight at 50 degreesC. The temperature was increased to 80 degreesC for 1 hour. Sheep blood was spiked with 10 CFU/ml of S. aureus and 0.5% saponin was added. The **dried** films were inoculated with 2.5ml of the lyzed blood solution and incubated overnight at 35 degreesC. All the fluid was absorbed and mutually isolated colonies were easily observed and harvested from the surface of the gel.

L56 ANSWER 5 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 2001-492158 [54] WPIX
DNC C2001-148223
TI Sheet-like incubator for microorganisms, is laminate of porous matrix and water soluble high molecular compound layers, sealed with cover film and support sheet and void is formed between cover film and porous layer.
DC D16
PA (CHCC) CHISSO CORP
CYC 1
PI JP 2001169772 A 20010626 (200154)* 7p C12M001-34 <--
ADT JP 2001169772 A JP 1999-359487 19991217
PRAI JP 1999-359487 19991217
IC ICM **C12M001-34**
ICS C12M001-32; **C12N001-00**
AB JP2001169772 A UPAB: 20010924
NOVELTY - New sheet-like microorganism incubator comprises a laminate containing porous matrix layer and a water soluble high molecular compound layer, which is sealed with a cover film and a support sheet. A void is created between the cover film and porous matrix layer.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for sheet like culture medium which uses the sheet-like incubator for carrying growth nutrition component of microorganism.
USE - For sheet like culture medium (claimed) and is useful for detecting microorganisms in foodstuffs and in other environments.
ADVANTAGE - The growth of the microorganism is maintained in a normal rate even when cultured in a sealed environment. Contamination of the culture medium by undesirable microorganisms is prevented. Detection of the test microbes can be carried out easily. Since the incubator is in the form of a thin sheet, large space is not occupied for culturing the microorganisms.
Dwg.0/0
FS CPI

FA AB
MC CPI: D05-H01; **D05-H02; D05-H04; D05-H06**
TECH UPTX: 20010924
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Incubator: A net-like sheet e.g., polyolefin network is provided between the convex-shaped cover film and the porous matrix layer of the sheet-like microorganism incubator. The cover film is bonded to the network-like film by heating.
ABEX UPTX: 20010924
EXAMPLE - A solution of 0.5 liter of water, 50 g of polyvinyl alcohol, (degree of saponification - 88%, degree of polymerization - 1800), 11 g of potato dextrose broth (PDB) and 100 mg of indoxyl acetic acid was heated and applied to a 0.5 mx1m polyester film of thickness 50 mum and **dried** and a water soluble high molecular compound layer was formed. A solution containing 1 g of PDB, and 5 g of polyvinyl alcohol dissolved in 100 ml of water, was applied on the initially formed layer and **dried** and a water soluble high molecular compound layer was produced. A non-woven fabric (nylon) with a thickness of 0.4 mm and fiber diameter of 2.5 mum, used as porous matrix layer was soaked in peptone solution and laminated to water soluble high molecular compound layer. The laminate formed was cut in the form of a sphere having a diameter of 50 mm. The water soluble high molecular compound side of the sphere was adhered to a 70 mmx80 mm polyester film of thickness 100 mum using acrylic type adhesive. This structure was covered by a lattice polypropylene layer (a cover film) having a thickness of 0.2 mm, by heating. The produced microorganism incubator sheet was sterilized and then a diluted solution containing 1 ml of microorganism culture was added to the sheet-like culture medium and cultured for several days at 25 degrees centigrade. Growth of the microorganism could be observed from the later half of the second day.

L56 ANSWER 6 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 2001-475654 [51] WPIX
DNC C2001-142569
TI Device for propagating or storing microorganisms, includes separable layers between which colonies can grow and can show reduced risk of dehydration or cross-contamination.
DC A96 B04 D16
IN HESSELROTH, K E; RAJAGOPAL, B S; WILLIAMS, M G
PA (MINN) 3M INNOVATIVE PROPERTIES CO
CYC 94
PI WO 2001038559 A2 20010531 (200151)* EN 23p C12Q001-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000070585 A 20010604 (200153) C12Q001-00
EP 1232244 A2 20020821 (200262) EN C12M001-26
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2003514568 W 20030422 (200336) 30p C12M001-34 <--
ADT WO 2001038559 A2 WO 2000-US22276 20000814; AU 2000070585 A AU 2000-70585 20000814; EP 1232244 A2 EP 2000-959231 20000814, WO 2000-US22276 20000814; JP 2003514568 W WO 2000-US22276 20000814, JP 2001-539901 20000814
FDT AU 2000070585 A Based on WO 200138559; EP 1232244 A2 Based on WO 200138559; JP 2003514568 W Based on WO 200138559
PRAI US 2000-541416 20000403; US 1999-167036P 19991123
IC ICM C12M001-26; **C12M001-34**; C12Q001-00
ICS **C12N001-00**
AB WO 200138559 A UPAB: 20011129
NOVELTY - Device for propagation or storage of microorganisms comprises an indicator and a corresponding inducer and two separable layers, the first

layer comprising a gelling agent and a microbial growth medium (MGM) and the second layer comprising a gelling agent.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method for simultaneously propagating and obtaining replicas of a microorganism colony forming unit (CFU), comprising:

(1) applying an inoculum comprising a microorganism CFU to a device, which comprises layers (a) and (b) as described above, to form an inoculated device;

(2) contacting the layers (a) and (b) of the inoculated device to form a gel;

(3) incubating the inoculated device for a time sufficient for at least one cell division;

(4) separating the layers (a) and (b) to provide replicas of the microorganism CFU; and

(5) confirming separation of the microorganism CFU.

USE - The device and process can be used for propagation or storage of microorganisms, including bacteria, fungi, yeast, phage or mycoplasma.

ADVANTAGE - After an inoculum containing a microorganism CFU is applied to the device, the first and second layers are contacted to form a gel. The microorganism colony is then grown for a desired time. Upon opening of the device, a portion of a colony growing on the plate transfers to both films, providing two replicates. The device can be stored in a refrigerator with less risk of dehydration, disintegration of the gel or cross-contamination of colonies, when compared to agar plates.

DESCRIPTION OF DRAWING(S) - The figures show a device for propagation or storage of microorganisms.

device 10

first layer substrate 12

culture medium 14

foam spacer 16

second layer cover sheet 20

1A, 1B/1

FS CPI

FA AB; GI; DCN

MC CPI: A12-W11L; B01-D02; B04-C02A2; B04-C02D; B04-C03A; B04-C03B; B04-F09; B04-F10; B04-F11; B05-A01B; B06-D01; B07-A02B; B10-A09A; B11-A01; B11-C06; B12-K04; D05-A03A; **D05-H02**; D05-H08

TECH UPTX: 20010910

TECHNOLOGY FOCUS - BIOLOGY - Preferred Device: At least 80%, preferably 85% or 95% of visible microorganism colonies partition to form replicates on the first and second layers upon separation of the layers. The replicates on the first or second layer are detectable by magnified or unmagnified visual inspection, or by genetic analysis (e.g. hybridization, polymerase chain reaction, plasmid restriction analysis or expression screening). The layers are rehydratable.

The first layer can also comprise a selectable agent, e.g. an antibiotic or an amino acid deficiency. The first and second layers can comprise an adhesive. The second layer may also comprise a MGM.

The first and second layers especially comprise water impermeable substrates such as polystyrene, polyethylene, polypropylene, polyester, glass or coated paper. The substrates comprise a contiguous piece of material which has a fold so that the first and second layers are substantially opposed to each other, and are removably or permanently attached to each other. The substrates are held together by a hinge, clasp, glue, staples or a clamp.

Preferred Agent: The gelling agent is guar gum, xanthan gum, locust bean gum, polyvinyl alcohol, carboxymethyl cellulose, alginate, gellan, polyvinylpyrrolidone or a low molecular content polyacrylic acid. The MGM can comprise a detergent, e.g. deoxycholate, bile salts or lauryl sulfate. The MGM can also comprise a salt. The indicator may be precipitable or a chromogenic indicator, e.g. 5-bromo-4-chloro-3-indoxyl-beta-D-orlucuronic acid, L-alanine-5-bromo-4-chloro-3-indoxyl ester (trifluoroacetate salt), 5-bromo-4-chloro-3-indoxyl-1-acetate, 5-bromo-4-chloro-3-indoxyl-3-

acetate, 5-bromo-4-chloro-3-indoxyl-N-acetyl-beta-D-glucosaminide, 5-bromo-4-chloro-3-indoxyl-butyrate, 5-bromo-4-chloro-3-indoxyl-caprylate, 5-bromo-4-chloro-3-indoxyl-beta-D-cellobioside, 5-bromo-4-chloro-3-indoxyl-beta-D-glucuronic acid (sodium salt), 5-bromo-4-chloro-3-indoxyl-myo-inositol-1-phosphate (ammonium salt), 5-bromo-4-chloro-3-indoxyl palmitate and 5-bromo-4-chloro-3-indoxyl thymidine-3'-phosphate (cyclohexylammonium salt).
The inducer is especially 1-O-methylglucuronic acid, isopropyl-beta-D-thioglucuronic acid, isopropyl-beta-D-thiogalactopyranoside or 1-O-methyl-beta-D-glucopyranoside. The indicator and inducer are in the same layer.
Preferred Microorganisms: The microorganisms are bacteria, fungi, yeast, phage or mycoplasma. The bacteria are aerobic, anaerobic or microaerophilic e.g. Escherichia coli, Staphylococcus or Pseudomonas.

TECHNOLOGY FOCUS - POLYMERS - Preferred Device: the first and second layers especially comprise water impermeable substrates such as polystyrene, polyethylene, polypropylene, polyester, glass or coated paper. The gelling agent is guar gum, xanthan gum, locust bean gum, polyvinyl alcohol, carboxymethyl cellulose, alginate, gellan, polyvinylpyrrolidone or a low molecular content polyacrylic acid.

ABEX UPTX: 20010910

EXAMPLE - The figures show a device as described above, prior to inoculation and after microorganism growth. The device includes a first layer made from a **self-supporting** solid substrate, with a typical thickness of 0.003-0.02 inches. The upper surface of this substrate is coated with a culture medium, which is then **dried** to provide a **dry** medium on the substrate. Alternatively, an adhesive may be coated on the substrate in order to hold a culture medium which is applied as a **powder**. A foam spacer with a circular opening can be attached to the medium-covered substrate. The spacer defines an area that is to be inoculated with a sample, and also serves to prevent leakage of sample. The second layer, in the form of a top cover sheet, is disposed on one edge of an upper surface of the foam spacer. This sheet is preferably transparent, impermeable to bacteria and impermeable to water vapor. This sheet includes gelling agents and can include MGM, inducers, indicators and/or an adhesive.

L56 ANSWER 7 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 2001-290252 [30] WPIX
DNN N2001-207357 DNC C2001-088849
TI Culture medium for detecting and enumerating microorganisms, comprises medium for growing microorganisms including ballasted pH indicator.
DC A97 D16 E24 S03
IN ADAMS, C A; HALVERSON, K J; KREJCAREK, G E
PA (MINN) 3M INNOVATIVE PROPERTIES CO
CYC 91
PI WO 2001014583 A1 20010301 (200130)* EN 20p C12Q001-04 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000027212 A 20010319 (200136) C12Q001-04 <--
US 6391626 B1 20020521 (200239) C12M001-16
EP 1208220 A1 20020529 (200243) EN C12Q001-04 <--
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2003507077 W 20030225 (200317) 22p C12N001-00 <--
ADT WO 2001014583 A1 WO 2000-US304 20000106; AU 2000027212 A AU 2000-27212 20000106; US 6391626 B1 US 1999-378991 19990823; EP 1208220 A1 EP 2000-905554 20000106, WO 2000-US304 20000106; JP 2003507077 W WO

2000-US304 20000106, JP 2001-518894 20000106
FDT AU 2000027212 A Based on WO 200114583; EP 1208220 A1 Based on WO 200114583; JP 2003507077 W Based on WO 200114583
PRAI US 1999-378991 19990823
IC ICM C12M001-16; **C12N001-00**; **C12Q001-04**
ICS **C12M001-34**; G01N021-80
AB WO 200114583 A UPAB: 20010603
NOVELTY - A culture medium comprises a medium for growing microorganisms including at least one ballasted pH indicator.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a method of detecting and enumerating microorganisms in a sample comprising adding the sample to the inventive culture medium, and detecting the color or fluorescence change of the ballasted pH indicator in the medium; and
(2) a culture medium device comprising a substrate (12) and the culture medium.
USE - The culturing medium is useful for detecting and enumerating microorganisms.
ADVANTAGE - The culture medium provides indicators, which do not exhibit toxicity to the microorganisms.
DESCRIPTION OF DRAWING(S) - The figure is a thin film culture plate device containing the culture medium.
Substrate 12
Dwg.1/1
FS CPI EPI
FA AB; GI; DCN
MC CPI: A12-L04; A12-W11L; D05-H01; **D05-H02**; **D05-H04**; E06-A02B; E06-A03; E08-D02; E10-A09A; E10-A09B7; E24-A03
EPI: S03-E04E
TECH UPTX: 20010603
TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Component: The medium comprises a cold water soluble **powder**.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Component: The ballasted pH indicator comprises pH indicator from monoazo dyes; polyazo dyes; amino-, hydroxy-, and aminohydroxy-arylmethanes (di- and tri-arylmethanes); modified phenolphthaleins; modified sulfonphthaleins; anthroquinones; xanthenes; polycyclic aromatics; or naphthofluoresceins, (preferably 2-(2,4-dinitrophenylazo)-6-(N-methyl-N-(2-hydroxysulfonyl-oxy-ethylsulfonyl)amido)-1-naphthol-3-sulfonic acid (DNSA), or carboxy phenol red). Preferred Property: The pH indicator has a pKa value of 6-8.

TECHNOLOGY FOCUS - POLYMERS - Preferred Component: The ballasted pH indicator comprises a ballast from cellulose, modified celluloses, dextrans, amino-modified dextrans, modified guar gums, guar gums, xanthan gum, locust bean gums, or preferably polyvinyl alcohol (PVA).
ABEX UPTX: 20010603
EXAMPLE - PVA (100 g) was dissolved in deionized (DI) water (800 ml) by stirring at 80degreesC. DNSA pH indicator (2g) was dissolved in DI water (150 ml) by stirring at room temperature. A 32% aqueous sodium hydroxide solution (20 ml) was added to the PVA solution and mixed by stirring. The DNSA solution was added in 2-ml aliquots. The solution was stirred for 6 hours at room temperature. The resulting DNSA-PVA was precipitated in 4 batches by adding 250 ml of the reaction mixture dropwise to methanol (2 L) with vigorous stirring. The precipitated polymer was isolated. The precipitate was washed 3 times with methanol (approximately500 ml per wash) until no more blue color eluted, and washed 3 times with ether (approximately500 ml per wash). The washed polymer was air **dried** overnight. It was dissolved in DI (800 ml) by stirring at 80degreesC and precipitated, isolated, and washed. It was air **dried** overnight under vacuum and room temperature. The recovered mass of DNSA-PVA ballasted pH indicator was 80 g.

L56 ANSWER 8 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 2001-266296 [27] WPIX
DNC C2001-080687
TI Biological assay device containing two chambers separated by activatable seal, useful for detecting microorganisms, specifically bacteria, e.g. for screening water or drug testing.
DC B04 D13 D16
IN ADAMS, C A; KREJCAREK, G E; WICKS, J H
PA (MINN) 3M INNOVATIVE PROPERTIES CO
CYC 94
PI WO 2001025395 A1 20010412 (200127)* EN 24p C12M001-18
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000078422 A 20010510 (200143) C12M001-18
EP 1220890 A1 20020710 (200253) EN C12M001-18
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2003511021 W 20030325 (200330) 26p C12M001-34 <--
ADT WO 2001025395 A1 WO 2000-US26983 20000929; AU 2000078422 A AU 2000-78422 20000929; EP 1220890 A1 EP 2000-968522 20000929, WO 2000-US26983 20000929; JP 2003511021 W WO 2000-US26983 20000929, JP 2001-528550 20000929
FDT AU 2000078422 A Based on WO 200125395; EP 1220890 A1 Based on WO 200125395; JP 2003511021 W Based on WO 200125395
PRAI US 1999-434586 19991105; US 1999-157237P 19991001
IC ICM C12M001-18; **C12M001-34**
ICS G01N037-00
AB WO 200125395 A UPAB: 20010518
NOVELTY - Device (A1) comprises at least two chambers separated by a seal that, when activated, provides contact between the chambers. At least one chamber contains a biological assay reagent (I).
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(a) device (A2) containing at least two chambers, separated by an activatable seal, in which at least one chamber contains as (I) one of bacteriophage (Bp), antiviral agent (Ia) or bacterial helper cells (BHC);
(b) device (A3) containing at least three chambers, each separated by a rotatable seal and separately containing Bp, (Ia) and BHC; and
(c) method for detecting presence or absence of a microorganism using the new devices.
USE - The device is used to detect microorganisms, especially bacteria (but also yeast, fungi or viruses), e.g. to screen water and foods, to test susceptibility of bacteria to antibacterial agents and/or to determine efficacy of virucidal agents.
ADVANTAGE - The device requires minimal handling; is easy to use and exploits phage amplification to provide rapid (e.g. 4-6 hour) and accurate results (quantitative or qualitative).
Dwg.0/1
FS CPI
FA AB; DCN
MC CPI: B04-E05; B04-F09; B04-F10; B04-F11; B04-G01; B04-N04; B11-C07A; B11-C07B; B11-C08E1; B11-C08E5; B11-C09; B12-K04A4; B12-K04E; B12-K04F; D03-K03; D03-K04; **D05-H02**; **D05-H04**; **D05-H05**; **D05-H06**; D05-H09; D05-H11; D05-H12D1
TECH UPTX: 20010518
TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Device: In A1, at least one chamber contains a liquid, and when the seal is activated, fluid communication is established between the chambers. Also a chamber may include a solid reagent, particularly a **powder**, and the

chambers are particularly separated by seals that are activated by rotation. In A3, the chamber containing (Ia) is positioned between the other two and may be subdivided (by an activatable seal) so as to contain two different (Ia). Particularly the devices are fashioned as tubes.
Preferred Materials: (I) are Bp, BHC, metabolic regulators, selective agents, proteins, antibodies, enzyme substrates, (Ia), dyes, indicators, pigments and/or nutrients.
Preferred Materials: In method (c), a test sample is added to at least one chamber, then the seal activated to allow contact between sample and (I). Particularly to detect bacteria, A3 is used, and the sample is added to the chamber containing Bp. The first seal is activated to allow contact with (Ia) so that any extracellular Bp are destroyed, then the second seal activated to allow contact between any Bp-infected bacteria and BHC. The cells are incubated and presence of target bacteria detected, e.g. by immunological detection of amplified phage, using a nucleic acid probe or by plaque assay. If the device contains two different (Ia), these are mixed before contact with extracellular Bp.

ABEX UPTX: 20010518

EXAMPLE - A device comprises a cylindrical polypropylene tube (128 mm long; outer diameter 6.35 mm and wall thickness 0.5 mm), closed with plastic stoppers at both ends and divided into four chambers by disk-shaped valves of silicone rubber, activated by rotation through 90 degrees. For detecting bacteria. the uppermost chamber is left empty (for receiving sample); the next chamber contains a solution of pomegranate rind extract (antiviral); the next a solution of ferrous sulfate (antiviral) and the last a pellet of lyophilized Escherichia coli ATCC 13706. In use the top chamber is filled with a mixture of sample, nutrient medium and the phage phiX174 (ATCC 13706-B1).

L56 ANSWER 9 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 2000-060831 [05] WPIX
CR 1999-370143 [31]; 2001-280518 [20]
DNC C2000-016742
TI Sensor device for detecting microorganisms.
DC A89 B04 D16 J04
IN HYMAN, J M; JEFFREY, S R; MARESCH, M J; MATSUMURA, P M; THORPE, T C
PA (ALKU) AKZO NOBEL NV
CYC 2
PI US 5976827 A 19991102 (200005)* 15p C12Q001-04 <--
JP 2001511654 W 20010814 (200154) 30p C12M001-34 <--
ADT US 5976827 A US 1997-989560 19971212; JP 2001511654 W WO 1998-US26376 19981210, JP 1999-531727 19981210
FDT JP 2001511654 W Based on WO 9929831
PRAI US 1997-989560 19971212
IC ICM **C12M001-34; C12Q001-04**
AB US 5976827 A UPAB: 20010924
NOVELTY - A sensor device (A) comprises:
(a) a container;
(b) an immobilization layer for immobilizing a sample to be tested for the presence or enumeration of microorganisms; and
(c) a sensor layer disposed between the immobilization layer and a wall of the container, at least a portion of the sensor layer capable of undergoing a detectable change due to the presence of microorganisms immobilized on and/or in the immobilization layer. The sensor layer is opaque.
USE - The device is used to detect microorganisms in a sample by incubating the sensor with the sample (claimed).
Dwg.0/5
FS CPI
FA AB; DCN
MC CPI: A12-L04B; A12-W11L; B04-F01; B11-C08E1; B12-K04; **D05-H02; D05-H04; D05-H05; D05-H06**; D05-H08; D05-H09; D05-J; J04-B01

TECH UPTX: 20000128
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred device: (A) further comprises an adhesive layer between at least one of: (a) the immobilization layer and the sensor layer, and (b) the sensor layer and the container wall. The immobilization layer comprises a gelling agent. The gelling agent is at least one of a solid gel, a semisolid gel or a **powdered** gel. The immobilization layer further comprises growth components for facilitating growth of microorganisms. The container is a sealed container having a headspace above the immobilization layer. (A) comprises a gas permeable membrane in a wall of the container and a removable gas impermeable seal positioned adjacent the gas permeable membrane. The wall of the container is transparent or translucent. The sensor layer is capable of undergoing a localized change in the ultraviolet, visible and/or infrared spectrum. The localized change is detectable through the wall of the container. The sensor layer undergoes a detectable change in response to changes in one or more of oxygen, hydrogen, hydrogen sulfide, carbon dioxide, ammonia, organic acid, nitrogen dioxide and pH. The detectable change is detectable in the infrared, ultraviolet or visible spectrums. The sensor layer comprises an indicator having a change detectable by imaging, fluorescence or reflectance technology. The sensor layer exhibits a change in fluorescence intensity or visible color over a pH range of 5.0-11.0. The immobilization layer comprises an immobilized sample with microorganisms therein. The immobilization layer comprises a single gelling agent or gelling agents. The gelling agents comprises one or more agents selected from gums, agars, agaroses, carageenans, bentonite, alginates, collagens, gelatins, fused silicates, water soluble starches, polyacrylates, celluloses, cellulose derivatives, polyethylene glycols, polyethylene oxides, polyvinyl alcohols, dextrans, polyacrylamides and polysaccharides. The immobilization layer comprises an upper layer for trapping microorganisms on a surface and a lower layer provided as a wicking agent to draw liquid sample through the upper layer. A first gelling agent is provided in an upper layer of the immobilization layer, and a second gelling agent is provided in a lower layer of the immobilization layer. (A) further comprises a conditioning components proximate to or within the immobilization layer for improving microorganism detection capabilities. The conditioning components comprise at least one of lytic agents, lytic enzymes, surfactants and components to neutralize growth inhibitors. The sensor layer comprises silicone. The sensor layer is constructed so as to undergo detectable localized changes, which correspond to the presence of microorganism colonies in the immobilization layer. The sensor layer is an opaque layer, which changes from one color to a second color while remaining opaque in the presence of microorganisms. At least one of the immobilization layer and the sensor layer are opaque. At least one layer in the device has matrixes that adversely affect visualization of microorganism colonies. At least one layer includes said sensor layer. The sensor layer sufficiently blocks the viewing of the test sample from the side of the sensor layer opposite from the immobilization layer. The sensor layer blocks the viewing with the eye or detecting with a detector, the test sample from the side of the sensor layer opposite from the immobilization layer.
ABEX UPTX: 20000128
EXAMPLE - None given.

L56 ANSWER 10 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1997-239246** [22] WPIX
DNC **C1997-076998**
TI Culturing apparatus - has water-retaining layer made of water absorption ink set on inside plane of waterproof base sheet which overlaps cover film.
DC D16
PA (NIPQ) DAINIPPON PRINTING CO LTD
CYC 1
PI JP 09075062 A 19970325 (199722)* 9p C12M001-16

ADT JP 09075062 A JP 1995-260929 19950914
PRAI JP 1995-260929 19950914
IC ICM C12M001-16
ICS **C12M001-34**
AB JP 09075062 A UPAB: 19970530
Culturing apparatus comprises a waterproof base sheet, and a transparent cover film which does not transmit water. A culturing base layer for culturing microbes is set to an inside plane of the base sheet or the cover film or to inside planes of both of them. For fixing an expanding area of liquid being inoculated, a water-retaining layer made of a water absorption ink is set at least to the inside plane of the base sheet which overlaps the cover film.
USE - Used for easily expanding an area of liquid being inoculated, and for counting numbers of colonies in a culturing apparatus reliably.
Dwg.1/4
FS CPI
FA AB; GI
MC CPI: **D05-H02; D05-H04**

L56 ANSWER 11 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1997-202866** [18] WPIX
DNC **C1997-064998**
TI Thin film culture plate device used to detect bacteria on sample - includes **self supporting** waterproof substrate contg. , layer of reconstitutable nutrient culture medium and mixt. of granular gelling agents.
DC D16 J04
IN FRANKLIN, G J
PA (MINN) MINNESOTA MINING & MFG CO
CYC 72
PI WO 9711157 A1 19970327 (199718)* EN 21p C12N001-00 <--
RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG
W: AL AM AT AU AZ BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN
AU 9669730 A 19970409 (199731) C12N001-00 <--
EP 857201 A1 19980812 (199836) EN C12N001-00 <--
R: DE FR GB
US 5869321 A 19990209 (199913) C12N001-20 <--
JP 11513248 W 19991116 (200005) 20p C12N001-00 <--
ADT WO 9711157 A1 WO 1996-US14536 19960911; AU 9669730 A AU 1996-69730 19960911; EP 857201 A1 EP 1996-930811 19960911, WO 1996-US14536 19960911; US 5869321 A Cont of US 1995-529307 19950918, US 1997-917000 19970820; JP 11513248 W WO 1996-US14536 19960911, JP 1997-512769 19960911
FDT AU 9669730 A Based on WO 9711157; EP 857201 A1 Based on WO 9711157; JP 11513248 W Based on WO 9711157
PRAI US 1995-529307 19950918; US 1997-917000 19970820
REP 1.Jnl.Ref; EP 398703; JP 06254382; US 3202731; US 4565783; US 4755468; US 5435851
IC ICM **C12N001-00; C12N001-20**
ICS C12M001-16; **C12Q001-04; C12Q001-06**; C12Q001-10
AB WO 9711157 A UPAB: 19970502
A reconstitutable culture medium comprises: (a) nutrients for growing microorganisms; and (b) a mixt. of gelling agents. (a) And (b) are prepd. in granular form by agglomerating them in the presence of an aq. binder in a fluidised bed. Also claimed is a thin film culture device for growing microorganisms comprising: (i) a **self-supporting,** waterproof substrate contg. a layer of a reconstitutable culture medium as above; and (ii) a cover sheet adhered to part of the substrate.
USE - The device is used to detect and enumerate bacteria present in a sample.
ADVANTAGE - Thin film culture plate devices are much simpler to use

than conventional agar medium/petri dish systems. The devices are compact and easily disposed of. They are also safer to use.
Dwg.1/1
FS CPI
FA AB; GI
MC CPI: D05-H01; **D05-H02**; J04-B

L56 ANSWER 12 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1997-139601** [13] WPIX
DNC **C1997-044480**
TI Simple culture medium and detection of microorganisms - comprises culture medium contg. water soluble gelling agent fixed to fibrous sheet.
DC A96 B04 D16
PA (NISR) NISSUI PHARM CO LTD
CYC 1
PI JP 09019282 A 19970121 (199713)* 4p C12N001-00 <--
ADT JP 09019282 A JP 1995-171662 19950707
PRAI JP 1995-171662 19950707
IC ICM **C12N001-00**
ICS C12M001-16; **C12M001-34**; **C12Q001-04**
ICI **C12N001-00**, C12R001:
AB JP 09019282 A UPAB: 19970326
A simple culture medium is made by fixing culture medium on a fibrous and water-absorbing sheet, of which the mesh is larger than the size of the gelling agent mentioned below. The culture medium consists of (a) adhesive soluble in water and alcohol; (b) gelling agent soluble in water but insoluble in alcohol; and nutrition for microorganisms. The culture medium may contain a colouring agent. The sheet may be laminated on a water-proofing plate.

Also claimed is a method for detection of a colony formed on culture medium by incubation thereon. (a) Alcohol is hydroxypropylcellulose, polyvinylpyrrolidone, and polyethylene oxide. (b) Gelling agent is naturally occurring e.g. xanthan gum, locust bean gum, guaiac, carrageenan; synthetic one, e.g. hydroxyethylcellulose; they may be used as **powder** of 500 micro m or smaller, pref. 0.5-50 micro m in average size. (c) Water soluble nutrients may be used. The sheet is synthetic or cotton-made nonwoven fabric.

USE/ADVANTAGE - The culture medium can be used in detection of a variety of microorganisms. Inoculation of a sample and incubation is simple. The colonies formed on the medium can easily be observed and the microorganisms can be screened exactly.

In an example, in 100 ml EtOH were suspended 1.7g peptone, 0.3g soybean peptone, 0.5g NaCl, 0.25g glucose, 0.25g K2HPO4, 3g xanthan gum, 0.5g hydroxypropylcellulose and 0.002g triphenyltetrazolium chloride, and the mixt. was stirred well. The resulting suspension, every 1 ml, was spread on a fibrous water absorbing sheet which was placed on a water-proofing plate of 47 mm in dia.. The plate was **dried** and sterilised with ethylene oxide gas.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A12-W11L; B04-C02A2; B04-C02D; B04-C03A; B04-C03C; B04-F01; B05-A01A; B05-A01B; B05-B02A3; B07-D13; B10-A07; B12-K04A; D05-H01; **D05-H04**; **D05-H05**

L56 ANSWER 13 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 1997-081097 [08] WPIX
DNN N1997-067174 DNC C1997-025934
TI A cell culture multi-well plate - without anchor dependency comprises e.g. methacrylate coated wells.
DC A89 B04 D16 S03
PA (NIPK) NIPPON KAYAKU KK; (UEHA-I) UEHARA Y
CYC 1

PI JP 08322593 A 19961210 (199708)* 19p C12Q001-06 <--
ADT JP 08322593 A JP 1995-161517 19950605
PRAI JP 1995-161517 19950605
IC ICM **C12Q001-06**
ICS C12M001-18; **C12M001-34**; C12M003-04; C12N005-02; G01N033-52
AB JP 08322593 A UPAB: 19970220
A cell culture multi-well plate for cells without anchor dependency comprises polymethacrylate, partic. poly(hydroxyalkyl) methacrylate, esp. poly(2-hydroxymethyl)methacrylate, coated wells, partic. for selective multiplication of the cells, and a culture method using the multi-well plate, and a method for quantitative determn. of the growth rate of cells without anchor dependency, partic. by uptake of tritium thymidine, tetrazolium redn. or colorimetric method. Multi-well cell culture plates are coated with polymethacrylate (e.g. poly(hydroxy-loweralkyl) methacrylate, esp,. poly(2-hydroxymethyl)methacrylate) with polymerisation degree of 50-100,000, pref. 100-10,000 to give thickness of 0.002-50, pref. 0.01-40 micron. Cells are cultured at 20-45, pref. 35-40 deg.C and the growth rate was determined by the claimed procedures.
ADVANTAGE - Simple culture and quantitative determn. of transformed cells without anchor dependency.
In an example, in a 95% EtOH soln. poly(2-hydroxyethyl)methacrylate was dissolved to make 5 mg/ml soln. and poured in a multi-well plate at a rate of 50 micro L/well and **dried** at 37 deg.C for 2 days to give the multi-well cell culture plate.
Dwg.4/22
FS CPI EPI
FA AB; GI; DCN
MC CPI: A04-F06E; A12-W11L; B04-C03B; B04-F01; B11-C07A; B12-K04A; **D05-H02**; D05-H09
EPI: S03-E14H

L56 ANSWER 14 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1997-034353** [03] WPIX
DNC **C1997-010779**
TI Surface colony counting device - Comprising substrate coated with adhesive compsn., cold water soluble **powdered** gelling agent and cover sheet.
DC B04 D16
IN NELSON, R L
PA (MINN) MINNESOTA MINING & MFG CO
CYC 70
PI WO 9638533 A1 19961205 (199703)* EN 28p C12M001-16
RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG
W: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN
AU 9656699 A 19961218 (199714) C12M001-16
US 5681712 A 19971028 (199749) 10p C12Q001-24 <--
EP 832180 A1 19980401 (199817) EN C12M001-16
R: DE DK ES FR IT NL SE
BR 9609345 A 19980714 (199835) C12M001-16
AU 700181 B 19981224 (199912) C12M001-16
JP 11506910 W 19990622 (199935) 28p C12M001-16
MX 9709197 A1 19980701 (200012) C12M001-16
EP 832180 B1 20020130 (200209) EN C12M001-16
R: DE DK ES FR IT NL SE
DE 69618954 E 20020314 (200226) C12M001-16
MX 205220 B 20011114 (200279) C12M001-16
ADT WO 9638533 A1 WO 1996-US5995 19960426; AU 9656699 A AU 1996-56699 19960426; US 5681712 A US 1995-457346 19950602; EP 832180 A1 EP 1996-913867 19960426, WO 1996-US5995 19960426; BR 9609345 A BR 1996-9345 19960426, WO 1996-US5995 19960426; AU 700181 B AU 1996-56699 19960426; JP

11506910 W JP 1996-536482 19960426, WO 1996-US5995 19960426; MX 9709197 A1 MX 1997-9197 19971127; EP 832180 B1 EP 1996-913867 19960426, WO 1996-US5995 19960426; DE 69618954 E DE 1996-618954 19960426, EP 1996-913867 19960426, WO 1996-US5995 19960426; MX 205220 B MX 1997-9197 19971127

FDT AU 9656699 A Based on WO 9638533; EP 832180 A1 Based on WO 9638533; BR 9609345 A Based on WO 9638533; AU 700181 B Previous Publ. AU 9656699, Based on WO 9638533; JP 11506910 W Based on WO 9638533; EP 832180 B1 Based on WO 9638533; DE 69618954 E Based on EP 832180, Based on WO 9638533

PRAI US 1995-457346 19950602

REP EP 398703; WO 8202563; WO 9312218

IC ICM C12M001-16; **C12Q001-24**
ICS **C12M001-34**

AB WO 9638533 A UPAB: 19970115
Surface colony counting thin film culture plate comprises:(a) a body which comprises a **self-supporting** substrate with upper (S1) and lower (S2) surfaces;(b) an adhesive compsn. comprising an H2O-insol. adhesive (I), a non-inhibitory emulsifying agent (II) and 1 or more hydrophilic agents (III) (nutrient for growing microorganisms and/or a selective agent) coated on (S1);(c) a cold-H2O-soluble **powder** comprising 1 or more gelling agents (IV) adhered to the H2O-based adhesive compsn.;(d) a cover sheet fitted to the substrate, and(e) an H2O-insol. spacer contg. an aperture to prevent contact of the cover sheet with compsns. (b) and (c).

Also claimed are:(1) a method for using the device as above which comprises:(a) adding an aq. mixt. comprising water and a hydrophilic agent to the aperture space of the device;(b) inserting a membrane which has been used to filter a liq. sample to be evaluated for the presence of microorganisms into the aperture space onto the aq. sample;(c) incubating the device for a period of time, and(d) counting the number of colonies growing on the surface of the filter, and(2) a kit for growing, detecting and/or enumerating microorganisms comprising a thin film culture plate device as above, a membrane and packaged hydrophilic agents.

ADVANTAGE - The culture plate readily allows growth, detection and enumeration of microorganisms on the surface of a membrane or microbial filter. In addn., coliform bacteria may be detected with reduced interference from tiny entrapped gas bubbles.

Dwg.1/3

FS CPI

FA AB; GI; DCN

MC CPI: B04-C02D; B04-C03B; B04-C03C; B04-F01; B11-C08C; B12-K04; **D05-H04; D05-H05**

ABEQ US 5681712 A UPAB: 19971211
A surface colony counting thin film culture plate device comprises:

(a) a body member comprising a **self-supporting** substrate with upper and lower surfaces;

(b) an adhesive composition coated on the upper surface of the substrate comprising a water-insoluble adhesive, a non-inhibitory emulsifying agent, and at least one hydrophilic agent selected from the group consisting of a nutrient for growing microorganisms, and/or selective agent;

(c) cold-water-soluble **powder** comprising at least one gelling agent adhered to the composition, wherein addition of liquid to the composition and **powder** produces a hydrated gel on the surface of the substrate;

(d) a cover sheet attached to the body member;

(e) a water-insoluble spacer containing an aperture wherein the spacer has a thickness in the range of at least about 1.3 millimetres to about 2 millimetres such that the spacer prevents contact of the cover sheet with the hydrated gel and wherein the cover sheet covers the aperture; and

(f) a membrane adapted to fit within the aperture of the spacer on the gel wherein the cover sheet does not contact the membrane when it is

positioned within the aperture of the spacer on the gel such that the device is adapted to grow microorganisms on the surface of the hydrated gel.
Dwg.1/3

L56 ANSWER 15 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 1996-500349 [50] WPIX
DNC C1996-156356
TI Culturing appts. which can be mfd. easily - has **powdered** nutrients fixed to water-absorption resin set on base sheet having mixed culturing ground materials layer.
DC D16
PA (NIPQ) DAINIPPON PRINTING CO LTD
CYC 1
PI JP 08256758 A 19961008 (199650)* 7p C12M001-34 <--
ADT JP 08256758 A JP 1995-84546 19950317
PRAI JP 1995-84546 19950317
IC ICM **C12M001-34**
ICS C12M001-16
ICA **C12Q001-06**
AB JP 08256758 A UPAB: 19961211
In this culturing appts. layer of mixed materials of a culturing ground is set on base sheet. Water absorption resin is applied to base sheet. At least one kind of **powder**-type nutritious components for microbes or mixed matter of at least one kind of **powder**-type nutritious components for microns and **powder**-type water absorption material is applied uniformly on water absorption resin. Then they are **dried** and fixed.
ADVANTAGE - Provides culturing appts. which can be kept for long time and can be mfd. easily.
Dwg.0/0
FS CPI
FA AB
MC CPI: **D05-H02**

L56 ANSWER 16 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1993-214160** [26] WPIX
DNC **C1993-095055**
TI **Self supporting** device for microbial culture - has substrate, e.g. of polyester, carrying layer of water based adhesive contg. nutrient, selective agent, etc. dusted with **powder** contg. gelling agent.
DC A89 D16 E24
IN CRANDALL, M D; NELSON, R L; RAMOS, M S
PA (MINN) MINNESOTA MINING & MFG CO
CYC 23
PI WO 9312218 A1 19930624 (199326)* EN 46p C12M001-16
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE
W: AU BR CA JP
US 5232838 A 19930803 (199332) 14p C12Q001-24 <--
AU 9230626 A 19930719 (199344) C12M001-16
EP 620844 A1 19941026 (199441) EN C12M001-16
R: CH DE DK ES FR GB IT LI
JP 07501943 W 19950302 (199517) C12M001-00
NZ 245136 A 19950627 (199530) C12M001-16
EP 620844 B1 19960103 (199606) EN 25p C12M001-16
R: CH DE DK ES FR GB IT LI
DE 69207430 E 19960215 (199612) C12M001-16
ES 2082522 T3 19960316 (199618) C12M001-16
MX 184309 B 19970403 (199821) C12M001-016
JP 3383304 B2 20030304 (200319) 18p C12M001-00
ADT WO 9312218 A1 WO 1992-US9435 19921104; US 5232838 A US 1991-804295 19911209; AU 9230626 A AU 1992-30626 19921104; EP 620844 A1 EP 1992-924242

19921104, WO 1992-US9435 19921104; JP 07501943 W WO 1992-US9435 19921104, JP 1993-510895 19921104; NZ 245136 A NZ 1992-245136 19921113; EP 620844 B1 EP 1992-924242 19921104, WO 1992-US9435 19921104; DE 69207430 E DE 1992-607430 19921104, EP 1992-924242 19921104, WO 1992-US9435 19921104; ES 2082522 T3 EP 1992-924242 19921104; MX 184309 B MX 1992-6922 19921201; JP 3383304 B2 WO 1992-US9435 19921104, JP 1993-510895 19921104

FDT AU 9230626 A Based on WO 9312218; EP 620844 A1 Based on WO 9312218; JP 07501943 W Based on WO 9312218; EP 620844 B1 Based on WO 9312218; DE 69207430 E Based on EP 620844, Based on WO 9312218; ES 2082522 T3 Based on EP 620844; JP 3383304 B2 Previous Publ. JP 07501943, Based on WO 9312218

PRAI US 1991-804295 19911209

REP 1.Jnl.Ref; EP 168238; EP 37150; EP 398703; JP 63305873; WO 8202563

IC ICM C12M001-00; C12M001-016; C12M001-16; **C12Q001-24**
ICS C12M001-026; C12M001-26; **C12M001-34**; C12M003-00; **C12Q001-06**

AB WO 9312218 A UPAB: 19931118
Culture medium device comprises (1) a **self-supporting** substrate; (2) layer of water-based adhesive (A) on the upper surface; (3) uniformly adhered to this layer, a cold-water soluble **powder** contg. at least one gelling agent. (A) contains a water-insoluble adhesive (I); a nonionic emulsifier (II) and at least one hydrophilic agent (III), i.e. a nutrient for microorganisms and/or a selective agent. Pref. the wt. ratio (III):(A) is 2.3-1:10 (1:2-4) and at least some of the substrate is covered by a releasably attached cover sheet. This sheet is a transparent polymer film, i.e. of polyester, polyolefin and/or polystyrene. The substrate is water proof and made of similar polymers.

USE/ADVANTAGE - The device is used to detect and quantify microorganisms in aq. samples. Uniform distribution of the **powder** avoids problems associated with concn. gradients of (III) and no side walls, spacers, sponges etc. are needed to contain the sample. A larger amt. of (III) can be incorporated, compared with use of solvent-based adhesives, and incorporation of potentially hazardous components in (A) improves safety.

Dwg.0/3

FS CPI

FA AB; DCN

MC CPI: A12-L04; A12-W11L; **D05-H02**; E06-D06; E06-D10; E07-D13C; E10-B01C; E10-E04M1; E11-Q03

ABEQ US 5232838 A UPAB: 19931118
Culture media device comprises a body member with **self-supporting** substrate; layer of water-based adhesive, on upper surface of substrate, comprising water-insol. adhesive, non-inhibiting emulsifying agent and at least one hydrophilic agent; and a cold water-soluble **powder** comprising at least one gelling agent adhered to adhesive layer. The device opt. includes a cover sheet and an air-permeable membrane.

The body member is waterproof and is composed of polyester, polypropylene or polystyrene. The adhesive is pref. a pressure sensitive adhesive comprising a copolymer of alkyl acrylate and alkyl amide monomers. Pref. the gelling agent is polyacrylamide, locust bean gum, algin, CHC, etc.

USE/ADVANTAGE - Uniform rates of inhibition can be applied to ensure more accurate determn. of microbial colonies with non-selective toxic effect prevention. Agents are not dispersed in the and do not contaminate users of device. Used for counting colonies of microorganisms, for determn. of extent of microbial contamination etc.

Dwg.0/3

ABEQ EP 620844 B UPAB: 19960212
A culture media device comprising: (a) a body member comprising a **self-supporting** substrate with upper and lower surfaces; ,(b) a layer of a water-based adhesive composition coated on the surface of the substrate wherein the water-based adhesive composition comprises a water-insoluble adhesive a non-inhibitory emulsifying agent, and at least

one hydrophilic agent selected from the group consisting of a nutrient for growing microorganisms, a selective agent and combinations thereof; and (c) col-water-soluble **powder** comprising at least one gelling agent adhered uniformly to the layer of the water-based adhesive composition.
Dwg.0/3

L56 ANSWER 17 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1991-106853** [15] WPIX
DNN **N1991-082239** DNC **C1991-046047**
TI Automatic measuring device for live bacteria - comprising means for injecting and diluting sample and culture, mixer, cooler, inoculating and culturing.
DC B04 D16 S03
PA (TAKE) TAKEDA CHEM IND LTD
CYC 1
PI JP 03049676 A 19910304 (199115)*
ADT JP 03049676 A JP 1989-185662 19890718
PRAI JP 1989-185662 19890718
IC **C12M001-34**
AB JP 03049676 A UPAB: 19930928
The device comprises a sample diluting means, a diluted sample injecting means, a culture medium injecting means, a mixing means, a culture medium cooling means, an inoculating means, a culturing means, an automatic determn. means, and transfer means to move a Petri dish along these means.
USE - All the necessary processes can be performed automatically.
0/0
FS CPI EPI
FA AB
MC CPI: B04-B02B1; B11-C08C; B12-K04; **D05-H02**; **D05-H04**
EPI: S03-E13D; S03-E14H

L56 ANSWER 18 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN 1990-350436 [47] WPIX
DNC C1990-152104
TI Devices for aerobic culture of microorganism - contains packaged, **dried**, reconstitutable growth medium.
DC A88 D16
IN HANSEN, P E; NELSON, R L
PA (MINN) MINNESOTA MINING & MFG CO
CYC 8
PI EP 398703 A 19901122 (199047)*
R: DE FR GB IT
AU 9054631 A 19901122 (199103)
CA 2015496 A 19901119 (199107)
JP 03015379 A 19910123 (199110)
US 5089413 A 19920218 (199210)
EP 398703 B1 19940119 (199403) EN 14p C12M001-16
R: DE FR GB IT
DE 69006097 E 19940303 (199410) C12M001-16
US 35286 E 19960625 (199631) 9p C12N001-00 <--
CA 2015496 C 19990309 (199928) C12N001-14 <--
JP 3113665 B2 20001204 (200065) 10p C12M001-34 <--
ADT EP 398703 A EP 1990-305320 19900517; JP 03015379 A JP 1990-128955 19900518; US 5089413 A US 1989-354627 19890519; EP 398703 B1 EP 1990-305320 19900517; DE 69006097 E DE 1990-606097 19900517, EP 1990-305320 19900517; US 35286 E US 1989-354627 19890519, US 1993-120288 19930913; CA 2015496 C CA 1990-2015496 19900426; JP 3113665 B2 JP 1990-128955 19900518
FDT DE 69006097 E Based on EP 398703; US 35286 E Reissue of US 5089413; JP 3113665 B2 Previous Publ. JP 03015379
PRAI US 1989-354627 19890519; US 1993-120288 19930913
REP US 3184395; WO 8202563

IC C12M001-16; **C12N001-10**
ICM C12M001-16; **C12M001-34**; **C12N001-00**; **C12N001-14**
ICS C12M001-22; C12M001-26; **C12N001-10**
AB EP 398703 A UPAB: 19930928
Devices for growing microorganisms comprise (a) a body and (b) a cold-water-reconstitutable **dry** medium. The body (a) has a growth region for growing microorganisms and comprises (i) a waterproof substrate and (ii) an air-permeable membrane having its edges exposed to air. The bottom surface of (ii) is fixed to the top surface of (i) and covers at least the growth region.
The medium (b) is fixed to the top surface of (ii) and coversa at least the growth region. It comprises at least one gelling agent and/or at least one microorganism nutrient.
USE/ADVANTAGE.- Device is used for growing e.g. moulds. As it is sealed the medium neither gets desiccated nor contaminated, yet the membrane allows adequate air-supply through.
0/5
FS CPI
FA AB
MC CPI: A12-W04; A12-W11A; A12-W11L; D05-H01; **D05-H02**
ABEQ US 5089413·A UPAB: 19930928
Microorganisms are grown in a device whose body member comprises (a) a waterproof substrate having a top and bottom surface; (b) an air-permeable membrane; and (c) a cold water-reconstitutable **dry** medium.
Part (b) has its peripheral edge(s) uncovered and has top and bottom surfaces, such that bottom surface is fixed to and covers at least part of the top surface of (a). Part (c) is fixed to and covers at least part of the top surface of (a), forming a growth region which includes 1 or more gelling agent and/or nutrient for growing microorganisms.
USE - For growing moulds and other aerobic microorganisms.
ABEQ EP 398703 B UPAB: 19940303
A device for growing microorganisms, which device comprises a body member having a growth region for growing microorganisms, which body member comprises (1) a waterproof substrate ahving a top surface and a bottom surface; (2) an air-permeable membrane, exposed at its edge(s) to air, and with a top surface and a bottom surface, the bottom surface being fixed to and covering at least the growth region of the top surface of the substrate; and (3) cold-water-reconstitutable **dry** medium fixed to and covering at least the growth region of the top surface of the membrane and comprising at least one ingredient selected from the group consisting of one or more gelling agents and one or more nutrients for growing microorganisms.
Dwg.0/4
ABEQ US 35286 E UPAB: 19960808
A device for growing microorganisms, which device comprises a body member, which body member comprises (1) a waterproof substrate having a top surface and a bottom surface; (2) an air-permeable membrane, having its peripheral edge(s) uncovered, and having a top surface and a bottom surface, the bottom surface being fixed to and covering at least a portion of the top surface of the substrate; and (3) cold-water-reconstitutable **dry** medium fixed to and covering at least a portion of the top surface of the membrane so as to define a growth region and comprising at least one ingredient selected from the group consisting of one or more gelling agents and one or more nutrients for growing microorganisms.
Dwg.4/5

L56 ANSWER 19 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1987-226720** [32] WPIX
DNC **C1987-095879**
TI Cell culture chamber of plastic film - unblocked by dusting film surfaces with finely granulated **dry powder**.
DC A97 D16

PA (ANON) ANONYMOUS
CYC 1
PI RD 279022 A 19870710 (198732)* 2p
PRAI RD 1987-279022 19870620
IC C12M000-01
AB RD 279022 A UPAB: 19930922
In an improved cell culture chamber made of thin films of plastic which is heat sealable, permeable to O2 and CO2 for the cell line, impermeable to liqs., non-toxic to the cells, and pref. transparent, 1 or both of the inner or contacting surfaces of the film(s) forming the chamber are deblocked, to reduce the tendency to stick together, by dusting the surfaces with a finely granulated **dry powder**, or by spraying with a suspension of the **powder** in a fluorocarbon propellant, e.g. "Freon" 113A (RTM).
FS CPI
FA AB
MC CPI: A12-L04; A12-W11L; **D05-H02**; D05-H08

L56 ANSWER 20 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1986-041864** [06] WPIX
DNC **C1986-017804**
TI Device for growing microorganisms - comprising body substrate with adhesive coating and **powdered** gelling agent and-or nutrients.
DC A96 D16
IN HANSEN, P E; NELSEN, R L
PA (MINN) MINNESOTA MINING & MFG CO
CYC 1
PI US 4565783 A 19860121 (198606)* 9p
ADT US 4565783 A US 1982-338559 19820111
PRAI US 1981-228893 19810127; US 1982-338559 19820111
IC C12M001-16; **C12Q001-24**
AB US 4565783 A UPAB: 19930922
Device for growing microorganisms comprises: (a) the body consisting of a **self-supporting**, waterproof substrate (I) having upper and lower surfaces; and (b) a layer of adhesive (II) coated on the upper surface, and a cold H2O-soluble **powder** (III) adhered uniformly to (II). (II) is non-inhibitory to the growth of microorganisms. (III) is a gelling agent and/or one or more nutrients for growing microorganisms. The device is free of matrixes which adversely affect visualisation and isolation of bacterial colonies.

The device pref. also has a cover sheet (esp. a transparent film (polyester, polyethylene, polypropylene, polystyrene or silicone)), and a hydrophobic spacer adhered to the upper surface of the substrate forming side walls to retain a predetermined amt. of liq. (esp. a hydrophobic foam sheet with a hole in it (partic. polystyrene or polyethylene)). (I) is pref. a polyester, polypropylene, polyethylene or polystyrene film of thickness 0.001-0.015 inches, with a grid pattern printed on it. (III) is suitably one or nutrients, with a gelling agent (carboxymethyl cellulose, hydroxyethyl cellulose, esp. guar gum and/or xanthan gum) to give a gel of Brookfield viscosity at least 1500 cps when hydrated. (II) is pref. a pressure-sensitive adhesive which is transparent when wetted with H2O, esp. a copolymer of isooctyl acrylate and acrylamide in mol. ratio 94:6. Pref. (II) or (III) contains a dye which is metabolisable by microorganisms and which causes them to be coloured or fluorescent (esp. triphenyltetrazolium chloride, p-tolyltetrazolium red, tetrazolium violet, and veratryltetrazolium blue).

USE/ADVANTAGE - The devices are much more compact and lightweight than petri dishes, are completely disposable, and give results comparable to those provided by conventional pour plates. The devices are activated by addn. of H2O.

0/0
FS CPI
FA AB

MC CPI: A12-W11L; **D05-H02**

L56 ANSWER 21 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1984-269506** [43] WPIX
CR 1986-041864 [06]
DNC **C1984-114271**
TI Cold water reconstitutable microorganism culture media - comprises nutrient and gelling agent layer covered by waterproof **self supporting** substrate.
DC A96 D16
IN HANSEN, P E; NELSON, R L
PA (MINN) MINNESOTA MINING & MFG CO
CYC 1
PI US 4476226 A (198443)* 9p
ADT US 4476226 A US 1982-338559 19820111
PRAI US 1981-228893 19810127; US 1982-338559 19820111
IC C12M001-16; **C12Q001-24**
AB US 4476226 A UPAB: 19930925
Device is for growing mico
roorganisms and consists of: (a) **self-supporting**, waterproof substrate (I) having upper and lower surfaces; and (b) a layer of adhesive (II) coated on the upper layer of (I) which is non-inhibitory to the growth of microorganisms and which has a cold water soluble **powder** (III) stuck uniformly to it. The **powder** (III) consists of one or more gelling agents and/or nutrients. The device is free of matrices which adversely effect visualisation and isolation of bacterial colonies.
USE/ADVANTAGE - The device is simply activated by the addn. of water when a homogeneous medium for microorganism culture is formed without mixing. In addn., the device is stable to storage.
0/4
FS CPI
FA AB
MC CPI: A12-L04; A12-W11; D05-H01; **D05-H02**

L56 ANSWER 22 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1984-202571** [33] WPIX
DNC **C1984-085069**
TI Appts. for determn. of microorganisms esp. pathogenic Candida species - by biochemical test, comprises marked containers enclosing reagent for microorganism determn..
DC B04 D16
IN BERETTI, R; BERTI, B; TARLI, P
PA (ISTS) SCLAVO SPA
CYC 11
PI DE 3404441 A 19840809 (198433)* 14p
FR 2540514 A 19840810 (198437)
JP 59154983 A 19840904 (198441)
GB 2138443 A 19841024 (198443)
ES 8505404 A 19850901 (198602)
GB 2138443 B 19860430 (198618)
US 4643974 A 19870217 (198709)
CA 1218587 A 19870303 (198714)
DE 3404441 C 19880818 (198833)
IT 1183052 B 19871005 (199040)
IT 1212696 B 19891130 (199150)
JP 07010227 B2 19950208 (199510) 5p C12M001-34 <--
ADT DE 3404441 A DE 1984-3404441 19840208; FR 2540514 A FR 1984-1864 19840207; JP 59154983 A JP 1984-20119 19840208; GB 2138443 A GB 1984-2904 19840213; GB 2138443 B GB 1984-2904 19840203; US 4643974 A US 1984-575334 19840131; JP 07010227 B2 JP 1984-20119 19840208
FDT JP 07010227 B2 Based on JP 59154983
PRAI IT 1983-19463 19830208; IT 1984-19031 19840105

IC C12M001-24; **C12N001-16; C12Q001-04;** C12R001-72
ICM **C12M001-34**
ICS C12M001-24; **C12N001-16; C12Q001-04;** C12R001-72
AB DE 3404441 A UPAB: 19930925
Appts. for the determn. and identification of microorganisms by biochemical tests consists of a series of containers. Each container comprises a reagent for the determn. of such microorganims and is applied on one single supporting unit or member. The containers are provided with markings connecting all containers in which all biochemical tests take place required to determine a specific microorganism. The markings can have different lengths, colours and/or appearance, and may also be replaced, in pt., by symbols and/or nos.
Pref. the reagents may be present in **dried**, freeze-**dried**, solid or tablet form. The microorganism can be a yeast or esp. a pathogenic type of the Candida species, e.g. Candida albicans, -stellatoidea, -kruesi, -tropicalis, -guilliermondii, -parapsilosis or -pseudotropicalis.
USE - The appts. is partic. useful for the determn. of pathogenic Candida species.
0/1
FS CPI
FA AB
MC CPI: B02-C01; B04-B02B; B05-A01A; B07-A02; B10-A07; B10-A13D; B10-E04A; B11-C08; B12-K04; **D05-H05**
ABEQ DE 3404441 C UPAB: 19930925
Appts. for the determn. and identification of microorganisms by biochemical tests consists of a series of containers. Each container comprises a reagent for the determn. of such microorganims and is applied on one single supporting unit or member. The containers are provided with markings connecting all containers in which all biochemical tests take place required to determine a specific microorganism. The markings can have different lengths, colours and/or appearance, and may also be replaced, in pt., by symbols and/or nos.
Pref. the reagents may be present in **dried**, freeze-**dried**, solid or tablet form. The microorganism can be a yeast or esp. a pathogenic type of the Candida species, e.g. Candida albicans, -stellatoidea, -kruesi, -tropicalis, -guilliermondii, -parapsilosis or -pseudotropicalis.
USE - The appts. is partic. useful for the determn. of pathogenic Candida species.
0/1
ABEQ GB 2138443 B UPAB: 19930925
A device for use in the identification of microorganisms by biochemical tests, the device comprising a set of containers each for holding a reagent for the identification of such microorganisms and assembled on a single supporting member wherein is present a series of marks which conjoin all the containers in which take place the biochemical tests sufficient for identifying a specific microorganism.
ABEQ US 4643974 A UPAB: 19930925
Device for the indentification of microorganisms comprises an assembly of chambers in a supporting matrix, each chamber being charged with a reagent which gives a specific response to a given microorganism. The reagents are in the form of **dry powders** (e.g. freeze-**dried** solns.) solids or tablets, which readily dissolve on addn. of water and/or sample. A set of marks adjacent to each vessel in the assembly indicates the nature of the reagent, the specific microorganism, and the result obtd. for a positive test.
USE - The prod. is esp. applicable to the identification of yeasts, e.g. pathogenic Candida species.

L56 ANSWER 23 OF 23 WPIX COPYRIGHT 2003 THOMSON DERWENT on STN
AN **1982-68259E** [32] WPIX
TI Microorganism culturing device - consisting of substrate, adhesive, and

gelling and/or nutrient **powder**.
DC D16
IN HANSEN, P E; NELSON, R L
PA (MINN) MINNESOTA MINING CO
CYC 14
PI WO 8202563 A 19820805 (198232)* EN 27p
RW: AT BE CH DE FR GB LU NL SE
W: AU JP
JP 57502200 W 19821216 (198305)
EP 70310 A 19830126 (198306) EN
R: AT BE CH DE FR GB LI LU NL SE
CA 1183094 A 19850226 (198513)
EP 70310 B 19860507 (198619) EN
R: DE FR GB
DE 3270919 G 19860612 (198625)
IT 1147808 B 19861126 (198845)
JP 02049705 B 19901031 (199048)
ADT EP 70310 A EP 1982-900742 19820125; JP 02049705 B JP 1982-500802 19820125
PRAI US 1981-228893 19810127; US 1982-338559 19820111
REP US 2761813; US 2954327; US 3360440; US 3416998; US 3551295; US 3751341; US 3785930; US 3802842; US 3843456; US 3881993; US 4077845; DE 2825636; US 3814670
IC C12M001-16; C12N000-00; **C12Q001-24**
AB WO 8202563 A UPAB: 19930915
Device consists of a **self-supporting**, waterproof substrate which has upper and lower surfaces. The upper surface is coated with a layer of adhesive (I) (non-inhibitory to the growth of microorganisms), which in turn is covered with a uniform layer of a cold-H2O-soluble **powder** (II). (II) is one or more gelling agents and/or nutrients for growing microorganisms.

Substrate is pref. relatively stiff polyester (0.01-0.018 cm), polypropylene (0.01-0.02 cm) or polystyrene (ca 0.038 cm) film with a square grid pattern printed on it. (I) (thickness generally 0.00051-0.0013 cm) is pref. a isooctylacrylate/ acrylamide copolymer (mol.ratio 94:6).

The devices are lighter and more compact than petri dishes; are completely disposable; are activated by addn. of H2O but do not involve mixing or the use of heat; and provide results comparable to those obtd. with conventional pour plates.
FS CPI
FA AB
MC CPI: **D05-H02**
ABEQ EP 70310 B UPAB: 19930915
A device for growing microorganisms, comprising: a body member comprising a **self-supporting**, water-proof substrate having upper and lower surfaces, and a layer of adhesive coated on said upper surface of said substrate, said adhesive being non-inhibitory to the growth of microorganisms, characterized in that said device comprises a cold-water-soluble **powder** uniformly adhered to said adhesive, said **powder** comprising at least one ingredient selected from a gelling agent, one or more nutrients for growing microorganisms, and a mixture thereof.

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(FILE 'HOME' ENTERED AT 08:29:43 ON 23 JUL 2003)
SET COST OFF

FILE 'WPIX' ENTERED AT 08:29:53 ON 23 JUL 2003
L1 3245 S C12M001-34/IC,ICM,ICS
L2 140 S C12M001-34/ICA,ICI
L3 3 S C12M001:34/ICI

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                E REILLY S/AU
L4            5 S E3,E8
                E LAROCCA P/AU
L5            2 S E3,E5
                E LA ROCCA P/AU
L6            2 S E2
                E LAROCCA M/AU
L7            1 S E4,E5
L8            1 S US20010041352/PN
L9            0 S L4-L7 AND L1-L3
L10           0 S L8 AND L1-L3
L11           8 S L4-L8
                SEL DN AN 2
L12           1 S L11 AND E1-E3
L13        5256 S D05-H02/MC
L14       20631 S (D05-H04? OR D05-H05? OR D05-H06?)/MC
L15        5897 S A01N063/IC,ICM,ICS,ICA,ICI
L16        2747 S C12Q001-04/IC,ICM,ICS
L17         313 S C12Q001-04/ICA,ICI
L18         589 S C12Q001-24/IC,ICM,ICS,ICA,ICI
L19         868 S C12Q001-06/IC,ICM,ICS,ICA,ICI
L20       36235 S C12N001/IC,ICM,ICS,ICA,ICI
L21         245 S L13 AND L14
L22          87 S L13 AND L15,L16
L23         477 S L13 AND L20
L24          25 S L13 AND L19
L25          71 S L13 AND L18
L26           1 S L13 AND L17
L27         101 S L1-L3 AND L21-L26
L28           7 S L27 AND ?POWD?/BIX
L29           4 S L27 AND DRY?/BIX
L30          17 S L27 AND DRI?/BIX
L31           7 S L27 AND DRIE?/BIX
L32          10 S L30 NOT L31
L33          11 S L28,L29,L31 NOT L32
                SEL DN AN 6
L34          10 S L33 NOT E4-E6
L35          11 S L12,L34
L36          80 S L27 NOT L28-L35
                SEL DN AN 41 55
L37           2 S E7-E11 AND L36
L38          13 S L35,L37
L39        8307 S L1-L3,L13
L40         116 S L39 AND ?POWD?/BIX
L41          21 S L40 AND DRY?/BIX
L42          20 S L40 AND DRIE?/BIX
L43          28 S L41,L42 NOT L28-L38
                SEL DN AN 1 14 26 27
L44           4 S L43 AND E12-E19
L45          17 S L38,L44 AND L1-L44
L46         156 S L39 AND L18
                SEL DN AN 70 93 137 147
L47           4 S L46 AND E20-E26
L48          20 S L45,L47
L49       10607 S SELF SUPPORT?/BIX
L50          15 S SELFSUPPORT?/BIX
L51          14 S L49,L50 AND L39
L52          23 S L49,L50 AND L14-L20
L53           5 S L51,L52 AND L48
L54          21 S L51,L52 NOT L53
                SEL DN AN 3 7 19
L55           3 S L54 AND E27-E33
L56          23 S L48,L53,L55 AND L1-L55
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FILE 'WPIX' ENTERED AT 09:15:45 ON 23 JUL 2003